

Claims

What is claimed is:

- 5 1. A method of determining functions to provide at a given node forming part of a communication path comprising:
  - at least one of:
    - sending first information identifying at least one of:
      - one or more local functions capable of being provided to traffic in the communication path by the given node; and
      - 10 • if available, one or more remote functions capable of being provided to the traffic by other nodes forming part of the communications path; and
    - receiving second information identifying the one or more remote functions; and
  - 15 • determining whether any of the one or more local functions should be applied to the traffic based on criteria, which defines how the one or more local and remote functions are applied by the given and other nodes and is available to the given node and other nodes.
- 20 2. The method of claim 1 further comprising applying to the traffic any of the one or more local functions, which are determined to be applied to the traffic.
3. The method of claim 1 wherein the second information is received from at least one of the other nodes that is upstream of traffic flow, and at  
25 least one of the other nodes that is downstream of the traffic flow.
4. The method of claim 3 wherein the at least one of the other nodes that is upstream of the traffic flow is a most proximate node upstream of traffic flow, and the at least one of the other nodes that is downstream of the traffic flow is a most proximate node downstream of the traffic  
30 flow.

5. The method of claim 3 further comprising creating the first information to identify the one or more remote functions provided by the one or more other nodes upstream and downstream of the given node and the local functions.
- 5 6. The method of claim 3 wherein the criteria is further based on a location of the one or more other nodes relative to the given node.
7. The method of claim 1 wherein the second information identifies the one or more remote nodes associated with each of the one or more remote functions.
- 10 8. The method of claim 1 wherein at least one of the one or more local and remote functions is associated with an attribute, which is sent or received with the one or more local and remote functions, the criteria defining how at least one of the one or more local and remote functions are applied based on the attribute.
- 15 9. The method of claim 1 wherein the traffic is voice traffic.
10. The method of claim 1 wherein the given node is at least one of the group consisting of a terminal, an access point, an endpoint, a gateway, and a routing node.
11. The method of claim 1 wherein certain of the one or more local  
20 functions and certain of the one or more remote functions are identical, the criteria defining selection indicia determining which of the one or more local and remote nodes is given priority.
12. A communication node forming part of a communication path comprising:  
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  - a communication interface; and
  - a control system associated with the communication interface and adapted to:

- at least one of:
  - send first information identifying at least one of:
    - one or more local functions capable of being provided to traffic in the communication path by the communication node; and
    - if available, one or more remote functions capable of being provided to the traffic by other nodes forming part of the communications path; and
  - receive second information identifying the one or more remote functions; and
- determine whether any of the one or more local functions should be applied to the traffic based on criteria, which defines how the one or more local and remote functions are applied by the communication node and the other nodes and is available to the communication node and the other nodes.

13. The communication node of claim 12 wherein the control system is further adapted to apply to the traffic any of the one or more local functions, which are determined to be applied to the traffic.
14. The communication node of claim 12 wherein the second information is received from at least one of the other nodes that is upstream of traffic flow, and at least one of the other nodes that is downstream of the traffic flow.
15. The communication node of claim 14 wherein the at least one of the other nodes that is upstream of the traffic flow is a most proximate node upstream of the traffic flow, and the at least one of the other nodes that is downstream of the traffic flow is a most proximate node downstream of the traffic flow.
16. The communication node of claim 14 further comprising creating the first information to identify the one or more remote functions provided

by the one or more other nodes upstream and downstream of the communication node, and the local functions.

- 5 17. The communication node of claim 14 wherein the criteria is further based on a location of the one or more other nodes relative to the communication node.
18. The communication node of claim 12 wherein the second information identifies the one or more other nodes associated with each of the one or more remote functions.
- 10 19. The communication node of claim 12 wherein at least one of the one or more local and remote functions is associated with an attribute, which is sent or received with the one or more local and remote functions, the criteria defining how at least one of the one or more local and remote functions are applied based on the attribute.
20. The communication node of claim 12 wherein the traffic is voice traffic.
- 15 21. The communication node of claim 12 wherein the communication node is at least one of the group consisting of a terminal, an access point, an endpoint, a gateway, and a routing node.
- 20 22. The communication node of claim 12 wherein certain of the one or more local functions and certain of the one or more remote functions are identical, the criteria defining selection indicia determining which of the one or more other nodes and the communication node is given priority.